UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,957	07/08/2003	So-Hyun Kim	678-965 (P10330)	7135

66547   7590   01/15/2008

THE FARRELL LAW FIRM, P.C.
333 EARLE OVINGTON BOULEVARD
SUITE 701
UNIONDALE, NY 11553

EXAMINER
MILLER, BRANDON J

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
01/15/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Office Action Summary	Application No.	Applicant(s)
		10/614,957	KIM, SO-HYUN
		Examiner	Art Unit	
		Brandon J. Miller	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _25 October 2007_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-7_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-7_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _7/8/2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claims 1-7 remain pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yi et

al. (US 2002/0114280 A1) in view of Jiang (US 6,687,248 B2) and Herrmann et al. (US

7,050,415 B2).

Regarding claim 1 Yi teaches a method of setting a transport format combination (TFC)

in a broadband code division multiple (CDMA) communication system (see paragraph [0030]).

Yi teaches transmitting from a radio resource control layer (RRC) transport format set (TFS)

information and transport format combination set (TFCS) information during a channel

initialization for data transmission among respective layers of the broadband CDMA

communication system (see paragraph [0029], RRC layer initially sending basic measurement

information reads on claimed transmitting from a RRC transport format set (TFS) information

and transport format combination set (TFCS) information because the measurement information

is used to determine TFC sets). Yi teaches selecting at a medium access control (MAC) layer an

initial TFC for preferentially allocating a radio bearer to a transmission channel on which a logic

channel having a relatively high priority among a plurality of transmission channels has been

mapped, wherein the allocation is initially achieved by analyzing the received TFS information

and the TFCS information (see paragraph [0029] and FIG. 4, MAC Layer allocating radio

resources using the initial information reads on selecting at a medium access control (MAC)

layer an initial TFC, wherein the allocation is initially achieved by analyzing the received TFS

information and the TFCS information). Yi teaches transmitting radio resource information from

the MAC layer to a radio link control (RLC) layer including respective logic channels by

allocating a radio bearer according to the initial TFC to the respective logic channels before

receiving buffer occupancy information from the radio link control (RLC) layer (see paragraph

[0030] and FIG. 4). Yi teaches transmitting at the radio link control (RLC) layer initial

transmission data along with buffer occupancy information of a transmission buffer to the MAC

layer based on the received radio resource information (see paragraph [0031]). Yi does not

specifically teach allocating a maximum packet data unit (PDU) value and transmitting an initial

PDU value from the MAC layer. Herrmann teaches allocating a maximum packet data unit

(PDU) value (see col. 5, lines 24-25). Hermann teaches transmitting an initial PDU value from

the MAC layer to a radio link control (RLC) layer by allocating the initial PDU value according

to the respective logic channels (see col. 5, lines 49-51, packet data units already assigned reads

on claimed initial PDU). It would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify the device in Yi to include allocating a maximum packet

data unit (PDU) value and transmitting an initial PDU value from the MAC layer because the

PDU values in Hermann relate to the amount of data traffic in Yi and it would improve the

efficiency of Yi's system for allocating radio resources to the RLC layers.

Regarding claim 2 Herrmann teaches determining at the MAC layer a mapping status of the logic channels for the respective transmission channels, and determining a priority of the respective logic channels (see col. 5, lines 16-28). Herrmann teaches selecting among the TFCS the TFC that allocates the maximum PDU value to the transmission channel on which the logic channel having the highest priority is mapped (see col. 5, lines 43-56). Herrmann teaches re-selecting among selected TFCs the TFC that allocates the maximum PDU value to the transmission channel on which the logic channel having the next-to-highest priority is mapped if a plurality of TFCs are selected (see col. 5, lines 56-60). Herrmann teaches repeating a step until one of the TFCs is selected, and if one of the TFCs is selected, setting the TFC as the initial TFC (see col. 5, lines 61-67 and col. 6, lines 1-3 & 41-48).

Regarding claim 3 Herrmann teaches allocating at the MAC layer the initial PDU value according to the initial TFC to the corresponding transmission channel (see col. col. 4, lines 40-45 and col. 5, lines 43-52, transport set at beginning of a transmission time relates to initial TFS and packet data units already assigned relates to initial PDU). Herrmann teaches allocating the allocated initial PDU value to the logic channel having the highest priority among the logic channels mapped on the respective transmission channel and transmitting the initial PDU value allocated to the logic channel to the RLC layer including the logic channel (see col. 5, lines 43-53).

Regarding claim 4 Herrmann teaches comparing at the RLC layer the received initial PDU value and a maximum transmission amount of a transmission buffer provided in the RLC layer, and if the initial PDU value is larger than the maximum transmission amount, the RLC layer sets the maximum transmission value as the final PDU value, while if the initial PDU is

smaller than the maximum transmission amount, it sets the initial PDU value as the final PDU

value (see col. 4, lines 40-45 & 55-64 and col. 7, lines 28-46, packet data units already assigned

relates to initial PDU).

Regarding claim 5 Herrmann teaches receiving at the RLC layer the initial PDU value

transmitted to the MAC layer where the initial transmission data is generated along with buffer

occupancy information of a transmission buffer by dividing or combining the initial transmission

data according to the set final PDU value during the generation of the initial transmission data;

and setting the received initial PDU value as the final PDU value (see col. 4, lines 55-64 and col.

7, lines 42-46).

Regarding claim 6 Yi teaches a method of setting a transport format combination (TFC)

in a broadband code division multiple (CDMA) communication system (see paragraph [0030]).

Yi teaches transmitting from a radio resource control layer (RRC) transport format set (TFS)

information and transport format combination set (TFCS) information during a channel

initialization for data transmission among respective layers of the broadband CDMA

communication system (see paragraph [0029], RRC layer initially sending basic measurement

information reads on claimed transmitting from a RRC transport format set (TFS) information

and transport format combination set (TFCS) information because the measurement information

is used to determine TFC sets). Yi teaches selecting at a medium access control (MAC) layer an

initial TFC using the received TFS information and the TFCS information, allocating a radio

bearer according to the initial TFC to the logic channels mapped on the corresponding

transmission channel (see paragraph [0029] and FIG. 4, MAC Layer allocating radio resources

using the initial information reads on selecting at a medium access control (MAC) layer an initial

TFC, wherein the allocation is initially achieved by analyzing the received TFS information and

the TFCS information). Yi teaches transmitting radio resource information from the MAC layer

to a radio link control (RLC) layer including respective logic channels by allocating a radio

bearer according to the initial TFC to the respective logic channels before receiving buffer

occupancy information from the radio link control (RLC) layer (see paragraph [0030] and FIG.

4). Yi teaches transmitting at the radio link control (RLC) layer initial transmission data along

with buffer occupancy information of a transmission buffer to the MAC layer based on the

received radio resource information (see paragraph [0031]). Yi does not specifically teach

allocating a packet data unit (PDU) value and transmitting an initial PDU value from the MAC

layer. Hermann teaches allocating an initial PDU value and transmitting from the MAC layer to

a radio link control (RLC) layer by allocating the initial PDU value according to the respective

logic channels (see col. 5, lines 49-51, packet data units already assigned reads on claimed initial

PDU). It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the device in Yi to include allocating a packet data unit (PDU) value and

transmitting an initial PDU value from the MAC layer because the PDU values in Hermann

relate to the amount of data traffic in Yi and it would improve the efficiency of Yi's system for

allocating radio resources to the RLC layers.

Regarding claim 7 Yi teaches a method of setting a transport format combination (TFC)

in a broadband code division multiple (CDMA) communication system (see paragraph [0030]).

Yi teaches receiving at a medium access control (MAC) layer transport format set (TFS)

information and transport format combination set (TFCS) information from a radio resource

control layer (RRC) during a channel initialization for data transmission among respective layers

of the broadband CDMA communication system (see paragraph [0029], RRC layer initially

sending basic measurement information reads on claimed transmitting from a RRC transport

format set (TFS) information and transport format combination set (TFCS) information because

the measurement information is used to determine TFC sets). Yi teaches selecting an initial TFC

by wherein the allocation is initially achieved by analyzing the received TFS information and the

TFCS information, wherein the initial TFC preferentially allocates a radio bearer to a

transmission channel on which a logic channel having a relatively high priority among a plurality

of transmission channels has been mapped (see paragraph [0029] and FIG. 4, MAC Layer

allocating radio resources using the initial information reads on selecting at a medium access

control (MAC) layer an initial TFC, wherein the allocation is initially achieved by analyzing the

received TFS information and the TFCS information). Yi teaches transmitting radio resource

information to a radio link control (RLC) layer including respective logic channels before

receiving buffer occupancy information from the radio link control (RLC) layer (see paragraph

[0030] and FIG. 4). Yi teaches transmitting at the radio link control (RLC) layer initial

transmission data along with buffer occupancy information of a transmission buffer to the MAC

layer based on the received radio resource information (see paragraph [0031]). Yi does not

specifically teach allocating a maximum packet data unit (PDU) value and transmitting an initial

PDU value from the MAC layer. Herrmann teaches allocating a maximum packet data unit

(PDU) value (see col. 5, lines 24-25). Hermann teaches transmitting an initial PDU value from

the MAC layer to a radio link control (RLC) layer by allocating the initial PDU value according

to the respective logic channels (see col. 5, lines 49-51, packet data units already assigned reads

on claimed initial PDU). It would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify the device in Yi to include allocating a maximum packet

data unit (PDU) value and transmitting an initial PDU value from the MAC layer because the

PDU values in Hermann relate to the amount of data traffic in Yi and it would improve the

efficiency of Yi's system for allocating radio resources to the RLC layers.

Response to Arguments

2.   Applicant's arguments with respect to claims 1-7 have been considered but are

moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Conclusion

3.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869.

The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 7, 2008

GEORGE ENG
SUPERVISORY PATENT EXAMINER